

CLAIMS:

1. A method of reverse mode replay of a stored video stream, wherein successive control words are required for decrypting normally successive segments of the stored video stream, control word information being supplied in units, each unit containing a control word required for decrypting a respective segment of the stored video stream, the method
- 5 comprising
- supplying selected sections of video information in reverse play back mode;
 - detecting a crossing position, where said supplying involves backward jumps across a boundary between segments;
 - selecting one of the units of control word information that contains the control word

10 required for decrypting a first segment normally previous to a second segment that extends up to the boundary;

 - resynchronizing supply of the units of control word information relative to supply of the sections of video information, supply of said one of the units of control word information being triggered by detection of the crossing position;

15 - concurrently storing at least two control words supplied for use in decrypting adjacent segments.
2. A method according to Claim 1, the method comprising
- storing boundary information that identifies control word change locations at boundaries

20 between the segments in the stream;

 - selecting a series of section start locations that are successively earlier in a normal sequence of the stream, successively replayed sections starting at successive ones of the section start locations in the series, whereby each section start location is associated with a time point of replay, data from each section being replayed in normally forward direction;

25 - using the boundary information to determine the crossing positions in the series, where jumps across boundaries occur;

 - retrieving respective ones of the units for respective ones of the crossing points, so that the respective one of the units retrieved for the respective one of the crossing point contains, as

control word, the control word required for decrypting the first segment for the respective one of the crossing points;

- supplying the respective ones of the units, synchronized to respective time points of section start locations at the respective ones of the crossing positions.

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3. A method according to Claim 1, wherein each unit contains a first and a second control word for decrypting a normally earlier and later one of a pair of successive segments respectively, said selecting comprising selecting said one of the units of control word information so that the first control word of the unit is the control word required for

10 decrypting the first segment.

4. A method of reverse mode replay according to Claim 1, the method comprising testing, for the crossing point, whether the section starting at the first section start location after the crossing point extends across the boundary and, if so, delaying supply of

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said one of the units substantially until the end of replay of data from the section and if not supplying the respective one of the units substantially together with a beginning of replay of the section.

5. A method of reverse mode replay according to Claim 1, supplying said one of

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the units only after replay of data from the section that starts from the section start location following the crossing point.

6. An apparatus for playing a stored video stream, the apparatus supporting a reverse replay mode, the stored video stream requiring successive control words for

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decrypting normally successive segments of the stored video stream, control word information being supplied in units, each unit containing a control word required for decrypting a segments of the stored video stream, the apparatus comprising

- a storage device for storing the stored video stream;

- an output for replaying at least part of the stored video stream from the storage device;

30 - a replay control unit that is arranged to

- cause supply of selected sections of video information in reverse play back mode;

- detect a crossing position, where said supplying involves a backward jump across a boundary between segments;

- select one of the units of control word information that contains the control word required for decrypting a first segment normally previous to a second segment that extends up to the boundary;

- 5 - resynchronize supply of the units of control word information relative to supply of the sections of video information, supply of said one of the units of control word information being triggered by detection of the crossing position, for concurrent storage of at least two control words supplied for use in decrypting adjacent segments.

7. An apparatus according to Claim 6, the apparatus comprising

- 10 - a storage element for addressably storing boundary information that identifies control word change locations at boundaries between the segments in the stream, the replay control unit being arranged to

- select, in the reverse replay mode, a series of section start locations that are normally successively earlier in the stream;

- 15 - replay data from sections of the stream, successively replayed sections starting at successive ones of the section start locations in the series, whereby each section start location is associated with a time point of replay, data from each section being replayed in forward direction;

20 - use the boundary information to determine crossing positions in the series, where jumps across boundaries occur;

- retrieve respective ones of the units for respective ones of the crossing points, so that the respective one of the units retrieved for the respective one of the crossing point contains, as control word, the control word required for decrypting the first segment for the respective one of the crossing points;

- 25 - supply the respective ones of the units, synchronized to respective time points of section start locations at the respective ones of the crossing positions.

8. An apparatus according to Claim 6, wherein each unit contains a first and a second control word for decrypting a normally earlier and later one of a pair of successive

- 30 segments respectively, and wherein the replay control unit selects said one of the units of control word information so that the first control word of the unit is the control word required for decrypting the first segment.

9. An apparatus according to Claim 6, the replay control unit being arranged to test, for the crossing point, whether the section starting at the first section start location after the crossing point extends across the boundary and, if so, delaying supply of said one of the units substantially until the end of replay of data from the section and if not supplying the
5 respective one of the units substantially together with a beginning of replay of the section.

10. An apparatus according to Claim 6, wherein the replay control unit is arranged to supply two units of control word information triggered by the start of reverse mode replay, the two units being selected so that the first unit contains a first control word needed for
10 decrypting the initial segment that contains a first section for reverse replay and the second unit contains a second control word for decrypting a further segment normally immediately preceding the initial segment, but no control word that changes the first control word.